



**SLOVENSKI STANDARD**  
**SIST ETS 300 581-5 E1:2003**  
**01-december-2003**

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European digital cellular telecommunications system; Half rate speech; Part 5:  
Discontinuous Transmission (DTX) for half rate speech traffic channels (GSM 06.41)

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**ICS:**

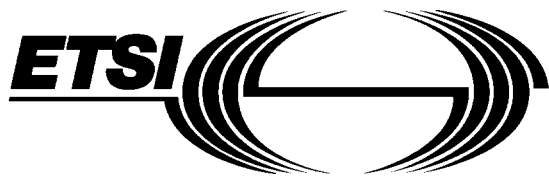
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**European digital cellular telecommunications system;  
Half rate speech  
Part 5: Discontinuous transmission (DTX) for half rate  
speech traffic channels  
(GSM 06.41)**

**ETSI**

European Telecommunications Standards Institute

**ETSI Secretariat**

**Postal address:** F-06921 Sophia Antipolis CEDEX - FRANCE

**Office address:** 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

**X.400:** c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

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## Foreword

This European Telecommunication Standard (ETS) has been produced by the Special Mobile Group (SMG) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS specifies the half rate speech traffic channels for the European digital cellular telecommunications system. This ETS corresponds to GSM technical specification, GSM 06.41, version 4.0.2 and is part 5 of a multi-part ETS covering the half rate speech traffic channels as described below:

GSM 06.02	ETS 300 581-1: "European digital cellular telecommunications system; Half rate speech Part 1: Half rate speech processing functions".
GSM 06.20	ETS 300 581-2: "European digital cellular telecommunications system; Half rate speech Part 2: Half rate speech transcoding".
GSM 06.21	ETS 300 581-3: "European digital cellular telecommunications system; Half rate speech Part 3: Substitution and muting of lost frames for half rate speech traffic channels".
GSM 06.22	ETS 300 581-4: "European digital cellular telecommunications system; Half rate speech Part 4: Comfort noise aspects for half rate speech traffic channels".
<b>GSM 06.41</b>	<b>ETS 300 581-5: "European digital cellular telecommunications system; Half rate speech Part 5: Discontinuous Transmission (DTX) for half rate speech traffic channels".</b>
GSM 06.42	ETS 300 581-6: "European digital cellular telecommunications system; Half rate speech Part 6: Voice Activity Detection (VAD) for half rate speech traffic channels".
GSM 06.06	ETS 300 581-7: "European digital cellular telecommunications system; Half rate speech Part 7: ANSI-C code for the GSM half rate speech codec".
GSM 06.07	ETS 300 581-8: "European digital cellular telecommunications system; Half rate speech Part 8: Test vectors for the GSM half rate speech codec".

NOTE: TC-SMG has produced documents which give the technical specifications for the implementation of the European digital cellular telecommunications system. Historically, these documents have been identified as GSM Technical Specifications (GSM-TS). These TSs may have subsequently become Interim European Telecommunication Standards (I-ETSS), (Phase 1), or European Telecommunication Standards (ETSS), (Phase 2), whilst others may become ETSI Technical Reports (ETRs).

Transposition dates	
Date of adoption of this ETS:	27 October 1995
Date of latest announcement of this ETS (doa):	28 February 1996
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 August 1996
Date of withdrawal of any conflicting National Standard (dow):	31 August 1996

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## 1 Scope

This European Telecommunication Standard (ETS) gives a description of the general baseband operation of half rate speech traffic channels in the transmitter and in the receiver of GSM Mobile Stations (MS)s and Base Station Systems (BSS)s during Discontinuous Transmission (DTX).

For clarity, the description is structured according to the block diagrams in figure 1 and 4. Except in the case described below, this structure of distributing the various functions between system entities is not mandatory for implementation, as long as the operation on the air interface and on the speech decoder output remains the same.

In the case of BSSs where the speech transcoder is located remotely in the Base Station Controller (BSC), the implementation of the interfaces between the DTX Handlers and the Radio Sub System (RSS) as described in this ETS together with all their flags is mandatory, being a part of the A-bis interface as described in GSM 08.61 (ETS 300 598) [11].

The DTX functions described in this ETS are mandatory for implementation in all GSM MSs. The receiver requirements are mandatory for implementation in all GSM BSSs, the transmitter requirements only for those where downlink DTX will be used.

## 2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

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- [1] GSM 01.04 (ETR 100): "European digital cellular telecommunication system (Phase 2); Abbreviations and acronyms".
- [2] GSM 04.08 (ETS 300 557): "European digital cellular telecommunications system (phase 2); Mobile radio interface layer 3 specification".  
<https://standards.iteh.ai/catalog/standards/sist/de153388-3ac3-465c-9d54-4152a2c45f16/sist-ets-300-581-5-e1-2003>
- [3] GSM 05.05 (ETS 300 577): "European digital cellular telecommunications system (phase 2); Radio transmission and reception".
- [4] GSM 05.08 (ETS 300 578): "European digital cellular telecommunications system (phase 2); Radio subsystem link control".
- [5] GSM 06.02 (ETS 300 581-1): "European digital cellular telecommunications system; Half rate speech Part 1: Half rate speech processing functions".
- [6] GSM 06.12 (ETS 300 580-4): "European digital cellular telecommunications system; Comfort noise aspects for full rate speech traffic channels".
- [7] GSM 06.20 (ETS 300 581-2): "European digital cellular telecommunications system; Half rate speech Part 2: Half rate speech transcoding".
- [8] GSM 06.21 (ETS 300 581-3): "European digital cellular telecommunications system; Half rate speech Part 3: Substitution and muting of lost frame for half rate speech traffic channels".
- [9] GSM 06.22 (ETS 300 581-4): "European digital cellular telecommunications system; Half rate speech Part 4: Comfort noise aspects for half rate speech traffic channels".
- [10] GSM 06.42 (ETS 300 581-6): "European digital cellular telecommunications system; Half rate speech Part 6: Voice Activity Detection (VAD) for half rate speech frame traffic channels".